

What is claimed is:

1. A mobile communication network system comprising a plurality of nodes including a home agent, a correspondent node, and a mobility anchor point connected to the network,

5        wherein each node produces a duplication of a binding cache on receipt of location registration information from a mobile terminal, maintains and manages the duplication of the binding cache, and

10        on restoration of the node from a failure, each node obtains the contents of the binding cache stored before the node failure from the duplicated binding cache.

2. The mobile communication network system according to claim 1,

15        wherein the node transmits a location registration request to the mobile terminal in accordance with the contents of the binding cache obtained before the failure, and

20        when no response is received against the location registration request, the node determines the binding cache obtained before the failure as invalid, and deletes the location information of said mobile terminal.

3. The mobile communication network system according to claim 2,

25        wherein, when a plurality of mobile terminals exist as objects for transmitting the location registration

request, the node controls transmission intervals of said location registration requests to the plurality of mobile terminals by successively transmitting with delay.

5           4. A mobile communication network system comprising a plurality of nodes each connected to the network,

          wherein, when a mobile terminal moves from a particular node to another different node, said mobile terminal obtains from an external link a node address after the  
10 movement as a care-of address, and transmits the obtained care-of address to the particular node as location registration information,

          the particular node registers the location registration information into a binding cache, manages the  
15 location registration information, duplicates the contents of the binding cache for backup purpose, and maintains and manages the duplicated contents of the binding cache, and

          when the particular node is restored from a failure  
20 and initiated for restoration, the particular node transmits a location registration request to the mobile terminal which is registered in the binding cache, and when no response is received from the mobile terminal against the location registration request, the node deletes the  
25 location information of the mobile terminal from the binding cache.

5. The mobile communication network system according to claim 4,

wherein the plurality of nodes include a correspondent node and a home agent, and

5 when the correspondent node transmits a packet to the mobile terminal using a home address of the mobile terminal, the home agent transfers the packet to the care-of address registered in the binding cache.

10 6. The mobile communication network system according to claim 5, further comprising a mobility anchor point as one of the plurality of nodes,

wherein the mobile terminal transmits the care-of address, which is transmitted to the home agent as location registration information, to the mobility anchor point as location registration information, and registers the care-of address into a binding cache of the mobility anchor point.

20 7. The mobile communication network system according to claim 6,

wherein, when a packet is transmitted from the correspondent node to the mobile terminal using the home address of the mobile terminal, the packet is intercepted by the home agent and the mobility anchor point, and transferred to the mobile terminal.